**IN THE CLAIMS**

1. - 3. (Cancelled)

4. (Currently Amended) ~~The~~ A method of ~~claim 2~~ clustering a multi-type vector space in accordance with a plurality of attributes including network attributes and application attributes, the method comprising:

obtaining the network attributes from a network having a plurality of nodes;

obtaining the application attributes of an application;

obtaining a user's communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;

forming a plurality of feature vectors, one for each of the plurality of nodes, where each single one of the plurality of feature vectors is based on the user's communication interest, network attributes, and application attributes, such that each single one of the plurality of feature vectors comprises features extracted from a plurality of different types of sources; and

clustering the plurality of nodes based on the plurality of feature vectors, wherein the ~~such that~~ clustering is performed by a nested method in which one or more of said plurality of nodes are initially clustered based on a sub-set of the plurality of attributes and then re-clustered by iteratively considering additional ones of the plurality of attributes.

5. (Currently Amended) The method of claim [[2]] 4, further comprising forming network delay maps and forward capacity maps from the network attributes, and such that the clustering is additionally based on the network delay maps and on the forward capacity maps.

6. (Cancelled)

7. (Currently Amended) The method of claim [[2]] 4, in which the obtaining the application attributes includes obtaining information regarding collaborative usage of the application.

8. (Currently Amended) The method of claim [[2]] 4, in which the obtaining the network attributes includes obtaining network path loss information, and such that the clustering is additionally based on the network path loss information.

9. (Currently Amended) The method of claim [[2]] 4, such that the clustering is additionally based on bandwidth constraints.

10. (Currently Amended) The method of claim [[2]] 4, such that the clustering is additionally based on a weighted distance function modeled from normalized attribute subspace metrics.

11. – 23. (Cancelled)

24. (Currently Amended) The method of claim [[1]] 4, wherein the network attributes comprise at least one of: an available bandwidth, a network delay, a network packet loss, and a node fanout.

25. (Currently Amended) The method of claim [[1]] 4, wherein the forming ~~the~~ each single feature vector further comprises basing ~~the~~ each single feature vector on one or more quality of service requirements.

26. – 27. (Cancelled)

28. (Currently Amended) ~~The~~ A computer readable storage device ~~of claim 26~~ containing an executable program for clustering a multi-type vector space in accordance with a plurality of attributes including network attributes and application attributes, where

the program performs steps comprising:

obtaining the network attributes from a network having a plurality of nodes;

obtaining the application attributes of an application;

obtaining user's communication interest as represented by at least one of: a user request for a content update or a user subscription to a specific data item or to a set of proximal data sources;

forming a plurality of feature vectors, one for each of the plurality of nodes, where each single one of the plurality of feature vectors is based on the user's communication interest, network attributes, and application attributes, such that each single one of the plurality of feature vectors comprises features extracted from a plurality of different types of sources; and

clustering the plurality of nodes based on the plurality of feature vectors, wherein the clustering is performed by a nested method in which one or more of said plurality of nodes are initially clustered based on a sub-set of the plurality of attributes and then re-clustered by iteratively considering additional ones of the plurality of attributes.